

### Claims

1. An aqueous dispersion of a resin composed of a polymer containing at least 20 weight% of a vinyl monomer unit (A) having an epoxy group and a vinyl alcohol based polymer (B), wherein a weight ratio (A)/(B) is 2/100 to 200/100, a weight percentage of (A) bound to (B) is 50% or more based on a total weight of (A) and an average particle diameter measured by a dynamic light scattering method is 500 nm or less.
2. The aqueous dispersion according to Claim 1, wherein the vinyl alcohol based polymer (B) contains 1 to 20 mol%  $\alpha$ -olefin unit having 4 or less carbons in a molecule and has a saponification degree of 80 mol% or more.
3. The aqueous dispersion according to Claim 2, wherein the  $\alpha$ -olefin unit is an ethylene unit.
4. The aqueous dispersion according to Claim 1, wherein the vinyl alcohol based polymer (B) contains 1.9 mol% or more 1,2-glycol bonds and has a saponification degree of 70 mol% or more.
5. The aqueous dispersion according to Claim 1, wherein the vinyl alcohol based polymer (B) contains 1 to 20 mol%  $\alpha$ -olefin unit having 4 or less carbons in a molecule and contains  $(1.7 - X/40)$  to 4 mol% 1,2-glycol bonds when a content of the  $\alpha$ -olefin unit is X mol%.

6. A composition obtained by combining a water resistant additive (b) with the aqueous dispersion (a) according to Claim 1.
7. The composition according to Claim 6, wherein the water resistant additive (b) is polyvalent carboxylic acid.
8. Resin powder obtained by drying the aqueous dispersion according to Claim 1 or a composition thereof.
9. A coating agent for paper composed of the aqueous dispersion according to Claim 1 or an aqueous redispersion of resin powder obtained by drying the aqueous dispersion.
10. A coating agent for thermosensitive paper composed of the aqueous dispersion according to Claim 1 or an aqueous redispersion of resin powder obtained by drying the aqueous dispersion.